NON-PUBLIC?: N
ACCESSION #: 9111120222
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Maine Yankee Atomic Power Company PAGE: 1 OF 2

DOCKET NUMBER: 05000309

TITLE: Plant Trip on Condensate Pump Motor Failure
EVENT DATE: 10/05/91 LER #: 91-010-00 REPORT DATE: 11/04/91

OTHER FACILITIES INVOLVED: Maine Yankee DOCKET NO: 05000309

OPERATING MODE: 7 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Joseph P. Waldman, Nuclear Safety TELEPHONE: (207) 882-6321
Engineer

COMPONENT FAILURE DESCRIPTION:
CAUSE: X SYSTEM: SD COMPONENT: MO MANUFACTURER: A180
REPORTABLE NPRDS: Yes

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT:

At 0237 on October 5, 1991, an automatic reactor trip from 100% power occurred due to actuation of the Reactor Protective System from a loss of load trip when the main turbine tripped. The turbine trip occurred when the steam driven feedwater pump (P-2C) tripped after a condensate pump (P-27C) breaker tripped due to a phase to phase short at the motor leads connection.

The generator primary relay (86P) actuation was delayed due to the slow closure of a main turbine stop valve; the backup relay (86BU) actuated and transferred station service to offsite power as designed. All safety systems performed as expected.

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END OF ABSTRACT

At 0237 on October 5, 1991, an automatic reactor trip from 100% power occurred due to actuation of the Reactor Protective System (JC) from a loss of load trip when the main turbine (TRB) tripped. The turbine trip occurred when the steam driven feedwater pump (P-2C) tripped after a condensate pump (P-27C) breaker (BKR) tripped due to a phase to phase short at the motor leads connection inside it's junction box. The electrical bus (BU) powering P-27C experienced a momentary voltage drop from the phase to phase short.

Post trip investigation revealed that a vibration induced failure of the Raychem coating (INS) on the leads connection resulted in the short. This connection had been in service for approximately three years. The motor was meggered and found to be undamaged. The lead connections were remade, meggered and the pump returned to service. A complete set of vibration checks and reliability data was taken.

Two of three condensate pumps are required for operation at 100% power. The second operating condensate pump (P-27B) was inspected and some minor fretting of the leads connection was evident. The junction box was lined with rubber to inhibit further wear. The third condensate pump (P-27A) was out of service for repair at the time of the trip.

The delayed actuation of the generator primary relay (86P), which transfers station power from the unit to offsite power, was caused by the slow closing (about 4 minutes) of a main turbine stop valve (MS-193) (ISV). 86P requires closure of all four stop valves before actuating. A backup relay (86BU) actuated on the turbine trip. 86BU transferred station power to offsite power as designed. The stop valve slow response was due to foreign material in the EHC fluid dump valve orifice. The dump valve was repaired and tested satisfactorily. The associated governor valve closed normally. All buses remained operable and energized during the event.

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Maine Yankee
RELIABLE ELECTRICITY FOR MAINE SINCE 1972

EDISON DRIVE o AUGUSTA, MAINE 04330 o (207) 622-4868

November 4, 1991

MN-91-156 SEN-91-307

UNITED STATES NUCLEAR REGULATORY COMMISSION
Attention: Document Control Desk
Washington, DC 20555

Reference: (a) License No. DPR-36 (Docket No. 50-309)

Subject: Maine Yankee Licensee Event Report 91-010-00 - Plant Trip on Condensate Pump Motor Failure

Gentlemen:

Please find enclosed Maine Yankee Licensee Event Report 91-010-00. This report is submitted in accordance with the requirements of 10 CFR 50.73(a)(2)(iv).

Please contact us should you have any questions regarding this matter.

Very truly yours,

S. E. Nichols, Manager
Licensing & Engineering Support Department

JVW/sjj

Attachment

c: Mr. Thomas T. Martin
Mr. Charles S. Marschall
Mr. E. H. Trottier
Mr. Patrick J. Dostie

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